



TO: ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES & SERVICE CENTERS
ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES REPRESENTATIVES

MODEL AFFECTED: MA-312

SYMPTOMS: "MOTOR BOATING" SOUND IN AUDIO OF MA-312 WHEN IN
"INTERCOM" OR "BUSY" MODES. DIFFICULT ADJUSTMENT
OF R727

CAUSE: Transmission line not properly loaded on remote side.

SOLUTION:

Add two 330 ohm 1/4W (4704-0331-032) resistors from each side
of the twisted pair (U3,U4) to ground on the remote end of
the system.

SERVICE MANUAL CHANGES: Replace Page 8 (attached).

TECHNICAL SERVICE DEPARTMENT
REGENCY COMMUNICATIONS, INC.

1-3 EQUIPMENT SUPPLIED

A. MA-312

1. MA-312 console
2. 17 VAC power supply transformer

B. MA-313

1. MA-313 adapter assy
2. MA-312, 313, 326, 343 service manual

C. MA-326

1. MA-326 rack-mount adapter
2. Wire kit for MA-313/326 installation
3. MA-313/326 mounting hardware
4. Channel switch hole plug
5. MA-313 insulation tape

D. MA-343

1. MA-343 male harness assy
2. MA-313 to MCB wire kit

1-4 EQUIPMENT NOT SUPPLIED

A. MA-312

1. 600 ohm pair with connector
2. External speaker

B. MA-313

1. 600 ohm pair
2. Wire kit

1-5 SYSTEM CONSIDERATIONS

1. The Line. The Regency tone remote system is designed to work with a 600 ohm twisted-pair leased line known as an "AT & T Type 2002." This line is not in the switched network that our regular telephones use. A switched network line should not be used, as the MA-312 and MA-313 will interfere with phone company operations.

The Regency tone remote system can be used with D.C. or A.C. coupled lines. Care should be taken to assure that line loss does not exceed 25dB especially at the tone frequency of 2600 Hz.

2. Equipment Required. A system will require the purchase of four different types of equipment: 1) at least one MA-312 desk console, 2) one MA-313 line terminal assembly, 3) either one MA-326 or one MA-343 terminal adapter, and 4) a base station transceiver. The MA-343 is a wire kit used for direct connection of the MA-313 to the Micro Com base transceivers (MCBU, MCBH, MCBL) units only. The MA-326 is an adapter board and wire kit designed to interface the rack-mount base transceivers to the MA-313. The

MA-326 transfers some front panel control of the base station to the cabinet interior, thus limiting use of the transceiver to service personnel only.

3. Other Base Stations. The Regency tone remote system was designed for use with MCB and MCC rack-mount base stations only. Modification for use with other base stations may be possible, but the service person is on his own in this area. In any installation of this sort, an MA-326 will most certainly be required. Regency Micro Com transceivers will interface most readily, particularly the newer models which use alpha-numeric designations for option tie points. Other transceiver makes may also adapt, but a high-to-low impedance match circuit will probably be required at the microphone input.

4. Other Tone Remotes. The Regency process for tone remote control is exclusive and incompatible with all other tone remote systems.

5. Number of Consoles. The number of consoles is limited by the amount of audio sensitivity in each console, their locations on the line with respect to each other, and the line loss. Assuming line loss is minimal between the consoles, the following chart gives the approximate maximum acceptance attenuation of the line between the consoles and the terminal for a desired number of consoles.

<u>Number of Consoles</u>	<u>Max. Line Attn. (dB)</u>
1	25
2	21.5
3	19
4	17
5	15
10	10
15	7

1-6 INSTALLATION

MA-312 Installation

1. Locate a convenient desk position for the MA-312 console within easy operator reach and near the required outlets.
2. Plug the power supply phone plug into the MA-312 phone jack, then plug the power supply into a 110 VAC wall outlet. Do not reverse this procedure as the power supply phone plug is electrically "hot."
3. Connect the 600 ohm line (AT & T Type 2002) to the modular jack. The user must supply the appropriate modular line cord or adapter. This is available from the phone company or other outlets such as Radio Shack. Series and connect the two terminating resistors (330 ohm supplied with the MA-313) across the line near the MA-312 installation. Ground the center. Only one set of terminating resistors is required for a group of MA-312's.
4. If desired, a remote speaker may be connected to the three-position jack.
5. If desired, one console may be designated as having supervisory control. See Note #7 on the MA-312 Schematic.